



Fridley Commons Park Well Field Proposed Plan

July 21, 2005

US EPA RECORDS CENTER REGION 5



508512

David Seely,
Project Manager
U.S. EPA



Google - Terms of Use



Federal Superfund Laws

- Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)
- Superfund Amendments and Reauthorization Act of 1986 (SARA)
- Implementing Regulations
 - National Contingency Plan [40 CFR Part 300]



Superfund Process Overview

Preliminary Screening Evaluations

- Preliminary Assessment
- Site Investigations
- Scored with Hazard Ranking System (HRS)
- Placement on National Priorities List (NPL)



Investigations / Remedy Selection

- Investigations
- Human Health & Ecological Risk Assessment
- Evaluation of Alternatives (Feasibility Study)
- Proposed Plan
- **Public Comment**
- Remedy Selection



Remedy Implementation

- Construction
- Operation and Maintenance
- Monitoring
- Deletion from the NPL





State / Federal Partnership

State – Lead Project

EPA's Role –

- Provides 90 % funding
- Advisory through the process (review and comment)
- Remedy requires EPA's approval



Remedy Selection Criteria - Threshold Criteria

Threshold Criteria must be met for a remedy alternative to be eligible for selection.

Criteria 1: Overall protection of human health and the environment

Criteria 2: Compliance with applicable or relevant and appropriate requirements



Remedy Selection Criteria - Balancing Criteria

Used to weigh major trade-off
among alternatives

Criteria 3: Long-term effectiveness and
permanence

Criteria 4: Reduction of toxicity, mobility or
volume through treatment

Criteria 5: Short-term effectiveness

Criteria 6: Implementability

Criteria 7: Cost



Remedy Selection Criteria - Modifying Criteria

Considered of equal importance as
balancing criteria.

Criteria 8: State/Support Agency Acceptance

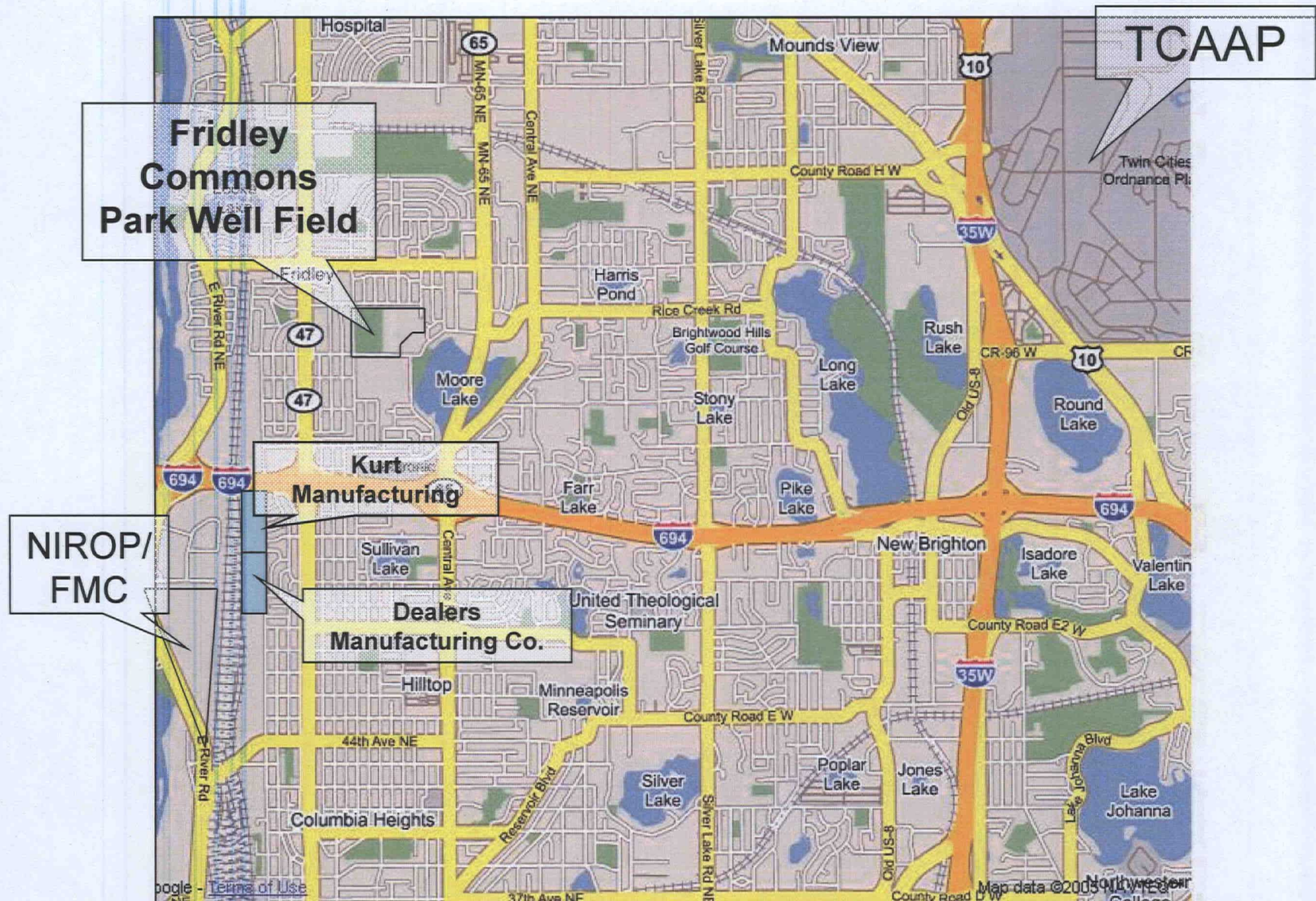
Criteria 9: Community Acceptance



Fridley Commons Park Well Field Proposed Plan Status

- **Proposed Plan Comment Period:
July 15th – August 15th**
- **Public Meeting: July 21, 2005**
- **Record of Decision completed by
September 30th after comments are
received, evaluated and addressed.**

Fridley Commons Park Well Field Superfund Site

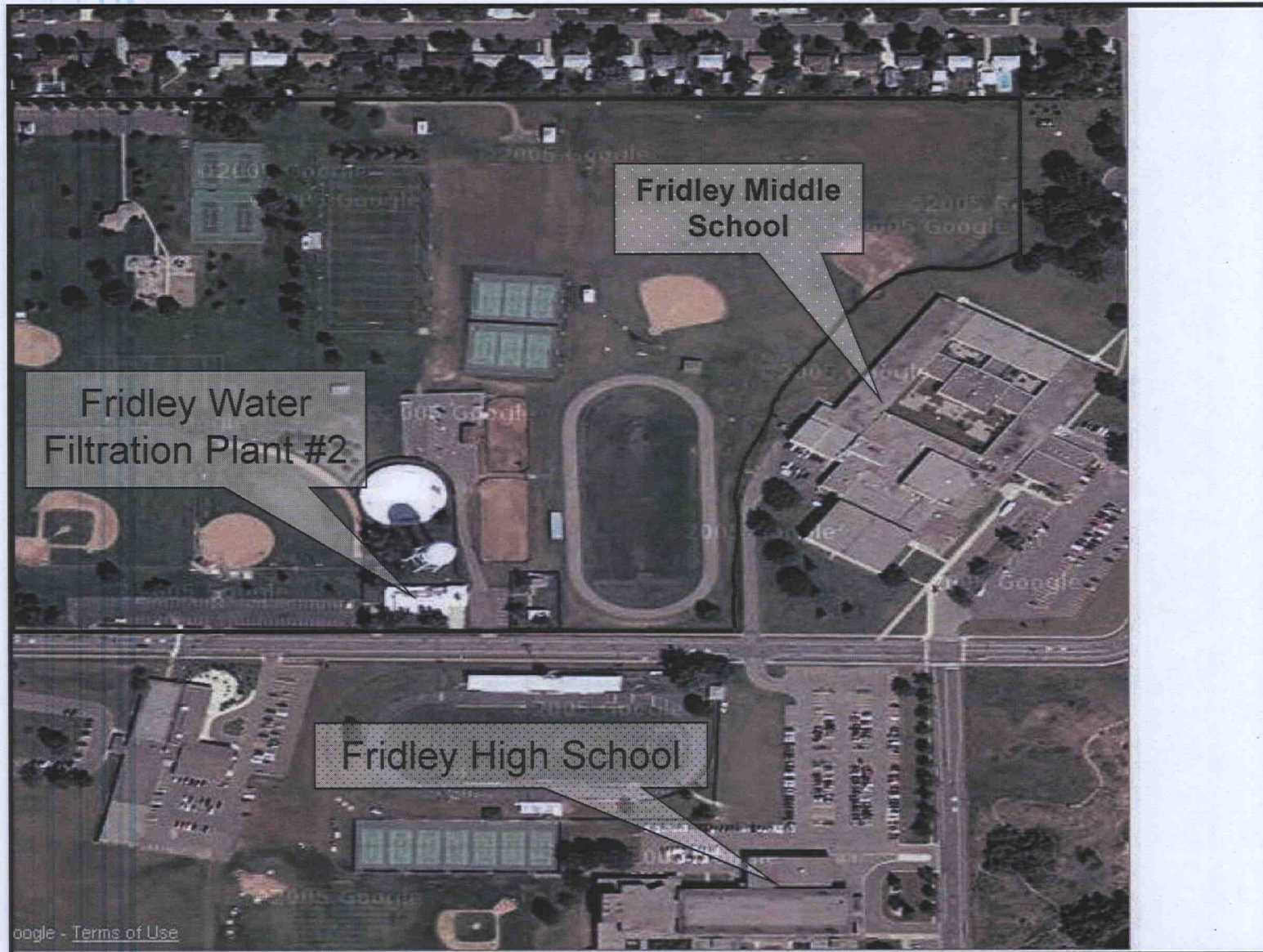


Fridley Commons Park Well Field

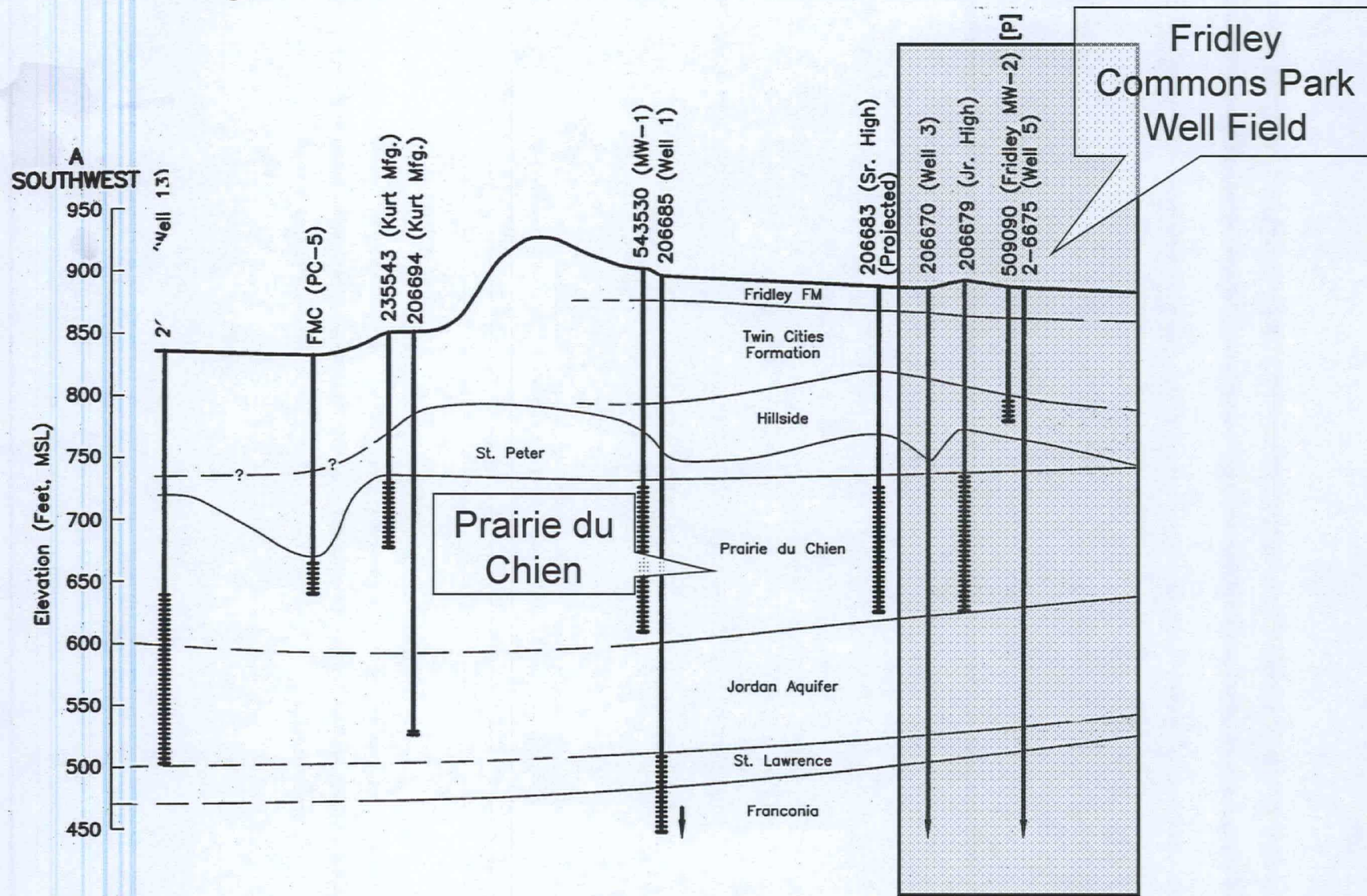
- Background

- Well Field in Community Park
 - 8 of 13 total Fridley Water Supply Wells
 - 4 screened in the fractured bedrock Prairie du Chien Aquifer (140-280 ft bgs)
 - 4 screened in the Mount Simon-Hinckley Aquifer (~280-380 ft bgs)
 - 5 other wells located a mile or more from the park
- Surrounded by residential neighborhoods, a middle school, and a high school

Fridley Commons Park



Fridley Well Field – Cross Section



Fridley Commons Park Well Field

- Background

- TCE initially detected in the well field in 1984
 - Well 9
 - consistently had the highest concentrations (max => 79ppb)
 - taken out of service in 1989 when the effluent from the H2O treatment plant > MCL
 - Wells 6, 7, and 8
 - taken out of service in 1993
 - Max concentrations (Well 6 – 15 ppb; 7 – 29 ppb; 8 – 15 ppb)
 - Fridley H2O supply supplemented by treated water from TCAAP
 - TCE concentrations affected by pumping rates

Fridley Area TCE Releases



Fridley Commons Park Well Field

- Background

- Site added to State's Superfund List in 1992
- Site placed on NPL 1999
- State Lead Project
- No PRPs
- No Source identified
- Characterization efforts have limited cost effectiveness

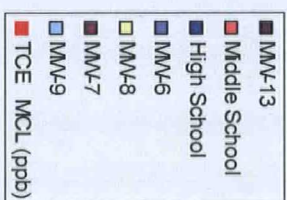
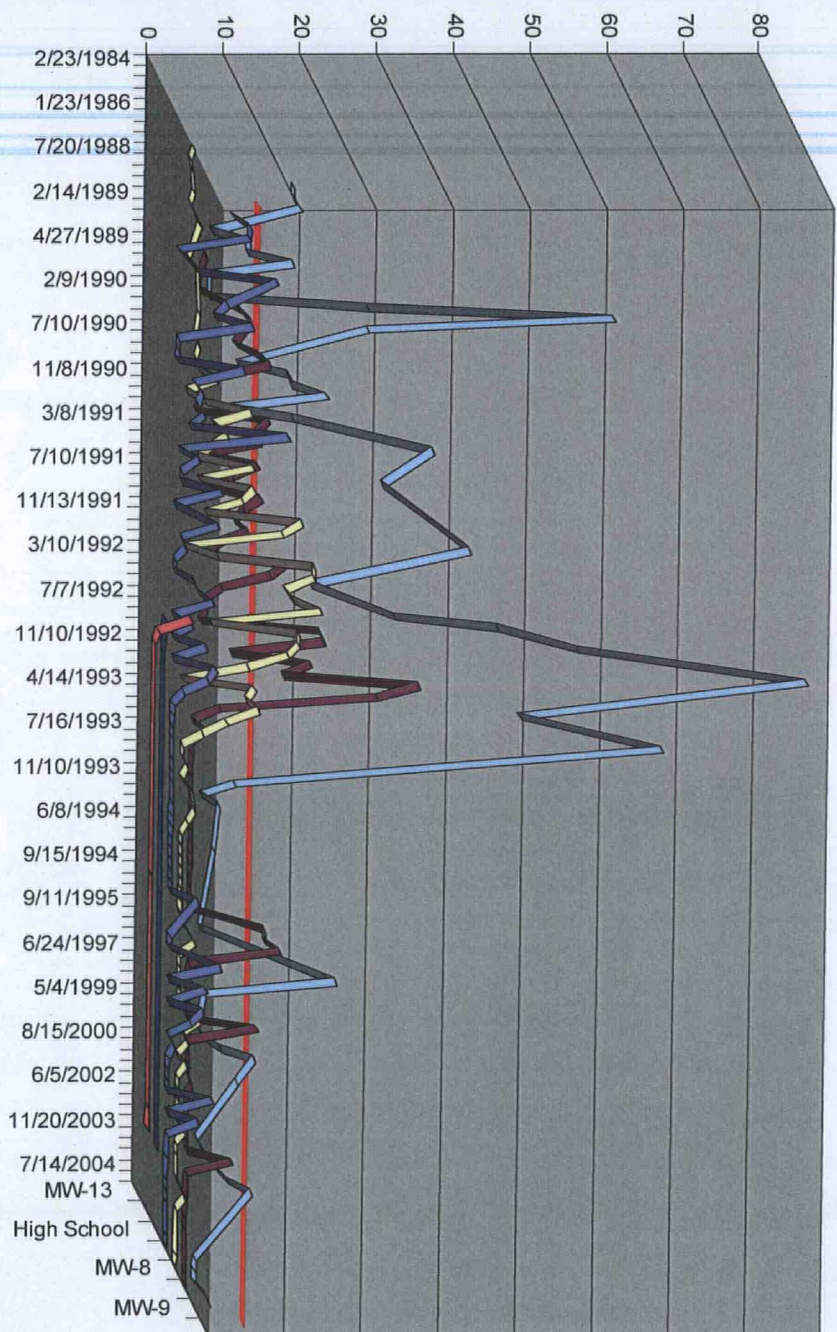
Fridley Commons Park Well Field

– Current Conditions

- TCE concentrations have been dropping over time
- No source at the Site
- No source identified in the immediate vicinity of the site
- TCE < MCLs in Wells 6,7 & 8 since 2002 and Well 9 since January 2004
- Water supply regulated by Safe Drinking Water Act

Fridley Commons Park Well Field

- Ground water monitoring Results



Fridley Commons Park Well Field

– Summary of Site Risks

- One contaminated medium (i.e. Ground water)
- One contaminant of concern (i.e. TCE)
- One Pathway of exposure (i.e. exposure to potable H₂O)
- TCE Concentrations are below a promulgated health based standard (i.e. MCL)
- No Ecological Risk (i.e. pathways do not exist)
- Significant risks are not present at the site

Fridley Commons Park Well Field

– Proposed Remedy

- No Action
- Monitoring Required
 - Intended to be a early warning system for drinking water supply
 - Uncertainty exists about the source of TCE
 - Uncertainty exists about effects of pumping rates
 - If monitoring results confirm recent trend, monitoring is expected to end; Safe Drinking Water Act Monitoring will continue as long as the wells are in use

Fridley Commons Park Well Field – Summary of Community & State Concerns

- **Limited or no community concerns have been identified**
- **City of Fridley is aware of the likely proposed remedy and is prepared to assist in the implementation**
- **Minnesota is prepared to implement monitoring**